

MODEL H8116 TOUCH-UP SPRAY GUN 0.5MM NOZZLE OWNER'S MANUAL



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#BL8892 PRINTED IN CHINA



Some dust created by power sanding, sawing, grinding, drilling, and other construction activities contains chemicals known to the State of California to cause cancer, birth defects or other reproductive harm. Some examples of these chemical are:

- Lead from lead-based paints.
- Crystalline silica from bricks, cement and other masonry products.
- Arsenic and chromium from chemically-treated lumber.

Your risk from these exposures varies, depending on how often you do this type of work. To reduce your exposure to these chemicals: Work in a well ventilated area, and work with approved safety equipment, such as those dust masks that are specially designed to filter out microscopic particles.

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SECTION 1: SAFETY

AWARNING

For Your Own Safety Read Instruction Manual Before Operating this Equipment

The purpose of safety symbols is to attract your attention to possible hazardous conditions. This manual uses a series of symbols and signal words which are intended to convey the level of importance of the safety messages. The progression of symbols is described below. Remember that safety messages by themselves do not eliminate danger and are not a substitute for proper accident prevention measures.



Indicates an imminently hazardous situation which, if not avoided, WILL result in death or serious injury.

▲WARNING **▲** CAUTION

Indicates a potentially hazardous situation which, if not avoided, <u>COULD</u> result in death or serious injury.

Indicates a potentially hazardous situation which, if not avoided, <u>MAY</u> result in minor or moderate injury. It may also be used to alert against unsafe practices.

NOTICE

This symbol is used to alert the user to useful information about proper operation of the equipment.

AWARNINGSafety Instructions for Pneumatic Tools

- KEEP ALL SAFETY DEVICES IN PLACE and in working order.
- REMOVE ADJUSTING KEYS AND WRENCHES. Form habit of checking to see that keys and adjusting wrenches are removed from tool before operation.
- KEEP WORK AREA CLEAN.
 Cluttered areas and benches invite accidents.
- DO NOT USE IN DANGEROUS ENVIRONMENT. Do not use pneumatic tools in damp or wet locations, or where any flammable or noxious fumes may exist. Keep work area well lighted.

- KEEP CHILDREN AND VISITORS AWAY. All children and visitors should be kept at a safe distance from work area.
- MAKE WORKSHOP CHILD PROOF by locking your shop and shutting off air valves.
- DO NOT FORCE TOOL. It will do the job better and safer at the rate for which it was designed.
- USE THE RIGHT TOOL. Do not force tool or attachment to do a job for which it was not designed.
- DO NOT USE UNDER THE INFLUENCE OF DRUGS OR ALCOHOL.

AWARNING

Safety Instructions for Pneumatic Tools

- 10. USE PROPER AIR HOSE for the tool. Make sure your air hose is in good condition and is long enough to reach your work without stretching.
- 11. WEAR PROPER APPAREL. Do not wear loose clothing, gloves, neckties, rings, bracelets, or other jewelry which may get caught in moving parts. Non-slip footwear is recommended. Wear a protective hair covering to contain long hair.
- 12. ALWAYS USE SAFETY GLASSES. Also use a face or dust mask if cutting operation is dusty. Everyday eyeglasses only have impact resistant lenses, they are NOT safety glasses.
- WEAR APPROVED HEARING PROTECTION.
- 14. SECURE WORK. Use clamps or a vise to hold work when practical. It is safer than using your hand and frees both hands to operate tool.
- DO NOT OVERREACH. Keep proper footing and balance at all times.
- 16. MAINTAIN TOOLS WITH CARE. Keep tools lubricated and clean for best and safest performance. Follow instructions for lubricating and changing accessories.
- 17. REDUCE THE RISK OF UNINTENTIONAL SPRAYING. Do not carry tool with hand on trigger and always disconnect from air when not in use.

- DISCONNECT TOOLS before servicing and changing accessories.
- 19. USE THE RECOMMENDED ACCESSORIES. Consult the owner's manual for recommended accessories. The use of improper accessories may cause risk of injury.
- 20. CHECK DAMAGED PARTS.

 Before further use of the tool, a guard or other part that is damaged should be carefully checked to determine that it will operate properly and perform its intended function. Check for alignment of moving parts, binding of moving parts, breakage of parts, mounting, and any other conditions that may affect its operation. A guard or other part that is damaged should be properly repaired or replaced.
- 21. NEVER LEAVE UNATTENDED TOOL CONNECTED TO AIR. Disconnect the air hose and do not leave tool until it is relieved of any built up pressure.
- 22. NEVER ALLOW UNTRAINED USERS TO USE THIS TOOL WHILE UNSUPERVISED.
- 23. IF YOU ARE UNSURE OF THE INTENDED OPERATION, STOP USING THE TOOL. Seek formal training or research books or magazines that specialize in pneumatic tools.

AWARNING

Additional Safety Instructions for Spray Guns

- READ THIS MANUAL. This manual contains proper operating instructions for this spray gun.
- READ MATERIAL LABELS and MATERIAL SAFETY DATA SHEETS (MSDS). Read and know all the instructions on the packaging label and the MSDS specific to the material you intend to apply before opening the package. This information could save your life.
- RESPIRATORY PROTECTION. Always wear a NIOSH approved respirator when spraying or working around finishing materials.
- FIRE EXTINGUISHERS. Always have a fully charged multi class or class B fire extinguisher in the immediate area.
- FLAMMABLE MATERIAL. NEVER spray near open flame or where any spark could occur.
- FRESH AIR. Always provide adequate exhaust to keep area free of built up vapors, NEVER spray in an unventilated area.
- DISCONNECT COMPRESSED
 AIR. Always disconnect the spray gun from compressed air before cleaning, changing attachments or when performing maintenance of any kind on this tool.

- PROTECTIVE CLOTHING. Protect exposed skin from overspray by wearing a protective suit or other approved garment.
- INAPPROPRIATE USE. DO NOT point or shoot spray gun directly at yourself or another person or animals. Do not attempt to use the spray gun for any other use than it was intended.
- STORAGE. Thoroughly clean and dry spray gun before storage. Store in an approved cabinet.
- SOLVENTS. Always store solvents and shop towels soaked in solvent in approved containers.
- 12. EYE PROTECTION. Wear eye protection whenever spraying or cleaning. Solvents and chemicals can cause serious eye injury, which could lead to blindness.
- 13. OPERATING PRESSURE. DO NOT exceed the recommended inlet air pressure. Excessive pressure could cause the spray gun to blow seals or cause other internal equipment damage.
- LOCAL LAWS. Consult local authorities regarding exhaust and waste disposal requirements.

SECTION 2: INTRODUCTION

Foreword

We are proud to offer the Grizzly Model H8116 Touch-Up Spray Gun. This model is part of a growing Grizzly family of fine pneumatic tools. When used according to the guidelines set forth in this manual, you can expect years of trouble-free, enjoyable operation, and proof of Grizzly's commitment to customer satisfaction.

It is our pleasure to provide this manual with the Model H8116. It was written to encourage safety considerations and guide you through general operating procedures and maintenance.

The specifications, details, and photographs in this manual represent the Model H8116 as supplied when the manual was prepared. However, owing to Grizzly's policy of continuous improvement, changes may be made at any time with no obligation on the part of Grizzly.

Tool Data

TypeGravity	Feed
Fluid Tip0	.5 mm
Air Consumption2.4	₽ CFM
Inlet Air Pressure3-4 Bar /45-6	30 PSI
Maximum Pattern Width @8"	1 9/16"
Material Capacity2	200 ml

Contact Info

If you have any comments regarding this manual, please write to us at the following address:

Grizzly Industrial, Inc.
C/O Technical Documentation
P.O. Box 2069
Bellingham, WA 98227-2069
Email: manuals@grizzly.com

Most importantly, we stand behind our tools. If you have any service questions or parts requests, please call or write us at the location listed below.

Grizzly Industrial, Inc.
1203 Lycoming Mall Circle
Muncy, PA 17756
Phone: (570) 546-9663
Fax: (800) 438-5901
E-Mail: techsupport@grizzly.com
Web Site: http://www.grizzly.com



Read the manual before operation. Become familiar with this spray gun, its safety instructions, and its operation before beginning any work. Serious personal injury may result if safety or operational information is not understood or followed.

SECTION 3: SET UP

Unpacking

Your spray gun left our warehouse in a carefully packed box. If you discover the spray gun is damaged after you have signed for delivery, please immediately call Customer Service at (570) 546-9663 for advice.

Save the containers and all packing materials for possible inspection by the carrier or its agent. Otherwise, filing a freight claim can be difficult.

When you are completely satisfied with the condition of the shipment, you should inventory the equipment.

Inventory

After you have unpacked the carton you should find the following:

Model H8116 Inventory (Figure 1):

A.	Spray Gun1
B.	Cup 200 ml 1
C.	Cleaning Brush 1
D.	Service Wrench 1
E.	Barbed Hose Fitting 1
F.	Lock Nut1

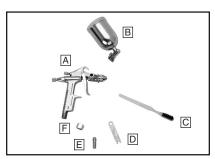


Figure 1. Model H8116 inventory.

Assembly

- 1. Screw the cup onto the body.
- Install the barbed hose fitting into the base of the gun handle and tighten in place with the lock nut.
- Secure the air hose to the barbed fitting with a hose clamp, or use a ¼" NPT quick connect fitting (not included).

Note: A 1/4" NPT quick connect set-up will make operation and maintenance tasks easier.

4. Attach the spray gun to an air supply regulated between 45 and 60 PSI.

Note: For the best results, use a hose dedicated for spray use only. Do not use a hose that has been used with an in-line oiler or other possible contaminant.

If you need additional help with this assembly, call our Technical Support at: (570) 546-9663.

Controls

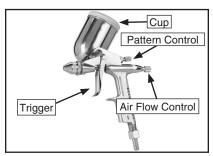


Figure 2. H8116 Controls.

- **1. Pattern Control:** Adjusts the spray pattern width.
- Air Flow Control: Controls the fluid pressure inside the spray gun and the volume of material that travels through the fluid tip.
- Trigger: Two stage trigger. Stage one releases compressed air for blowing off the work piece and purging the tip after spraying; stage two sprays material.
- 4. Cup: Holds material; Includes a vented cap.

SECTION 4: OPERATIONS





EXPLOSION HAZARD! DO NOT smoke or have any source of flame or spark near spraying. Vapors will explode if ignited.

AWARNING



RESPIRATORY HAZARD! Always use respirator rated for organic vapor and solvent use when using spray equipment. Failure to protect your lungs can lead to respiratory illness and nervous system damage.

AWARNING



TOXIC FUMES! Always use an approved spray booth or well ventilated area when spraying. NEVER spray in a confined space where toxic fumes and flammable vapors can accumulate to deadly levels.

Spraying

The Model H8116 spray gun is designed to spray paints and lacquers that have low viscosity or have been thinned down. It is ideal for touch-up projects.

To use your spray gun:

- Read and follow the material manufacturer's instructions for spraying, mixing, safety, disposal, and any other instruction on the label or Material Safety Data Sheet (MSDS).
- Ensure the cup is securely tightened to the gun and all other fittings are secure to avoid air leaks or material spills.
- 3. To start, set the inlet air pressure (the air coming to the spray gun) to the lowest pressure recommended in Tool Data on Page 7 or to the material manufacturer's recommendations. You can then adjust as necessary from there.
- 4. Fill the cup with material.
- Trial and error are necessary to achieve the results you want along with a fair amount of practice. Test your spray pattern on a piece of cardboard or scrap material that is similar to your project surface.

- 6. Adjust the air flow control knob to start with a low volume of material and keep the atomization as low as possible. You will need to use a combination of inlet air pressure, air flow control, and stroke speed to achieve the results you want.
 - Spray so the material has a consistently glossy-wet look without dry spots or primer showing through. Make multiple coats if required, to avoid running or sagging. Follow the paint or lacquer manufacturer's instructions for application.
- Rotate the pattern control knob to adjust the spray fan between the two patterns in Figure 3.

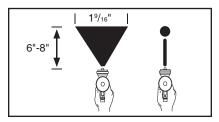


Figure 3. Fan adjustment.

8. Keep the gun tip perpendicular and parallel to the work surface as you spray from a distance of 6-8" as shown in Figure 4. Do not allow your wrist to bend. This will cause the gun to arc across the surface and distribute the material unevenly, possibly creating sags, drips or dry spots.

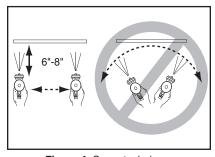


Figure 4. Spray technique.

- Begin spraying 2-3 inches before the work. Continue the motion for a few inches past the work until you are ready for the return stroke.
- Maintain an even speed when spraying.
- 11. Overlap each stroke by 50%. This will ensure even coverage as shown in Figure 5. Less than 50% as shown in the figure to the right may lead to missed spots or streaky results.

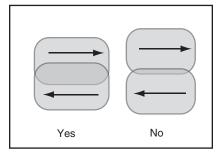


Figure 5. Overlap technique.

- 12. The spray stroke should be consistently even with parallel edges. If it doesn't please refer to Troubleshooting on Page 14.
- **13.** To orient the Model H8116 spray gun for downward or upward spraying, loosen the lock nut securing the cup, adjust the gun angle, and tighten the nut.

AWARNING

HEALTH & CONTAMINATION HAZARD! Dispose of paint waste in a responsible manner! Follow manufacturer's recommendations and local laws regarding disposal. Failure to comply will result in contamination and possibly large fines and penalties.

SECTION 5: ACCESSORIES

G6261—Campbell Hausfeld™ Water Filter

Remove damaging water vapor before it reaches your pneumatic tools. This highly effective, five micron filter features a seethrough bowl and easy in-line connections. 150 PSI maximum air pressure. 1/4" NPT.



Figure 6. G6261 Campbell Hausfeld™ water filter.

G8114—3/8" x 25 Ft. Air Hose G8115—3/8" x 50 Ft. Air Hose G8116—3/8" x 100 Ft. Air Hose

Multi-purpose red rubber air hose is flexible and abrasion resistant. Rated for 200 PSI, this air hose has a bursting strength of 800 PSI and 1/4" NPT ends.



Figure 7. Red rubber air hose.

H7274—Campbell Hausfeld™ Pressure Regulator

Provides regulated output pressure of 0 to 125 PSI for proper tool operation. Locking pressure knob prevents accidental adjustments. 15 SCFM flow capacity @ 90 PSI. 1/4" NPT.



Figure 8. H7274 Campbell Hausfeld™ pressure regulator.

H3174—Air Blow Gun with 2 Tips

This air blow gun includes a safety tip and rubber tip for all normal air cleaning jobs. 1/4" NPT.



Figure 9. H3174 Air Blow Gun with 2 Tips.

SECTION 6: MAINTENANCE

Cleaning

Proper cleaning is the best way to ensure trouble free performance from your spray gun. If your gun is not thoroughly cleaned between uses, damage and poor spraying will result. Problems caused by improper cleaning are not covered by the warranty. Clean the spray gun immediately after each use.

To clean your spray gun:

1. Spray a small amount of solvent or reducer through the spray gun.

Note: Check with local laws regarding this practice. If you are spraying on a regular basis, spraying solvents into the air may be illegal. A cabinet style spray gun cleaner may be required.

- 2. Disconnect the gun from the air supply!
- 3. Unscrew the cup.
- **4.** Use a wrench to loosen the air flow control knob, then remove the knob, the spring, and needle.

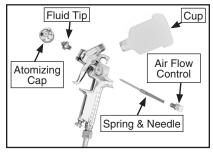


Figure 10. Typical disassembly for cleaning.

- Unscrew the atomizing cap with your fingers and remove the fluid tip with the service wrench. The fully disassembled gun should look like Figure 10.
- Rinse these parts thoroughly in solvent then dry with compressed air or let air dry.

Note: If the small holes in the atomizing cap become blocked, soak in clean solvent. If the blockage still exists, clear the blockage with a small needle, taking great care to not enlarge or damage the hole. Damage to the hole will create a disrupted spray pattern.

- Use the cleaning brush with solvent to clean the inner orifice and other hard to reach areas on the outside of the spray gun body.
- **8.** Wipe the rest of the gun body with a shop towel and dry.

AWARNING

EXPLOSION HAZARD! Chlorinated Solvents like Tricloroethane and Methylene Chloride (methyl chloride) can chemically react with aluminum and may explode. Many parts in spray guns are made of aluminum. Read solvent label carefully before using solvent.

NOTICE

DO NOT soak the spray gun body in solvent. Prolonged exposure to solvent will rapidly deteriorate the spray gun washers and seals. Ignoring this notice will void your warranty.

Lubrication

Lubricate the following areas on the Model H8116 (**Figure 11**) with spray gun oil, grease or petroleum jelly after cleaning.

- A. Atomizing Cap Threads
- B. Air Valve Packing
- C. Trigger Pin
- D. Air Flow Control Valve
- E. Pattern Control

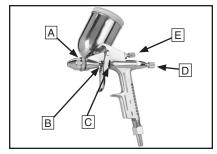


Figure 11. Lubrication points, Model H8116.

After each cleaning apply a thin film of petroleum jelly to the needle spring before reassembling.

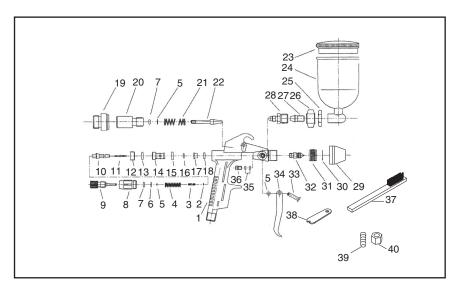
Troubleshooting

Symptom	Possible Cause	Solution
Fluttering or Spitting spray.	Dry or worn fluid tip seat permits air to seep into fluid passage.	Tighten fluid tip or replace seat with new one.
	2. Material level too low.	2. Add material.
(*)	3. Fluid tip or filter obstructed.	3. Clean.
	4. Dry needle packing.	4. Lubricate needle.
Pattern is incorrect shape. 1. Fluid nozzle damaged or clogged by paint.		1. Clean fluid nozzle.
No spray output.	No pressure at gun. Out of paint. Fluid passages dirty. Fluid control closed.	Check air supply. Refill. Clean gun, remove any obstructions. Open.
No air output. 1. Air switch clogged. 2. Air switch damaged.		1. Clean. 2. Change.

Symptom	Possible Cause	Solution
Excessive over- spray.	Fluid pressure too high. Gun is too far from surface.	Reduce fluid pressure. Keep gun at recommended distance.
Unable to control spray fan. 1. Pattern adjustment screw is not seating properly. 2. Atomizing cap is loose.		Clean or replace. Tighten atomizing cap.
Runs and sags.	1. Damaged seal.	Replace damaged seals.
Material leaks from cup.	 Cap not secure. Cup not tight on gun body. Leaking from cap vent hole. 	Tighten. Tighten. Hold gun upright, do not tilt.
Material leaks from gun. 1. Fluid tip loose. 2. Dry or damaged seals. 3. Excessive pressure.		Tighten. Replace seals. Reduce pressure.
Thick dimpled finish aka "Orange Peel."	Holding gun too close to surface. Inlet air pressure too low. Material not properly mixed. Surface is dirty or oily.	Spray at recommended distance. Check inlet air pressure. Follow manufacturer's instructions. More surface prep is required.
Dry Spray.	Inlet air pressure too high. Gun too far from surface.	Lower inlet air pressure. Keep gun at recommended distance.
Gun leaks from 1. Debris will not let the needle seat with the fluid tip.		Clean or replace both.
Bubbles and fisheyes in painted surface.	Incorrect surface preparation. Water or oil in the air line.	Prepare surface correctly. Install an in-line air filter or replace air line.

Notes

Parts Breakdown H8116



REF	PART #	DESCRIPTION
1	PH8116001	GUN BODY
2	PEC01M	E-CLIP 3MM
3	PH8116003	PAINT SPRING
4	PH8116004	COMPRESSION SPRING
5	PEC14M	E-CLIP 2MM
6	PH8116006	GASKET
7	PH8116007	O-RING 1.5 X 2.5
8	PH8116008	AIR FLOW CONTROL SEAT
9	PH8116009	AIR FLOW CONTROL BOLT
10	PH8116010	SPRING SLEEVE
11	PH8116011	NEEDLE
12	PH8116012	NOZZLE BOLT
13	PH8116013	O-RING 7 X 2
14	PH8116014	VALVE
15	PH8116015	VALVE GASKET
16	PH8116016	O-RING 3.5 X 1.5
17	PH8116017	LINER RING
18	PH8116018	FOAM GASKET
19	PH8116019	WIDTH ADJUSTING SEAT
20	PH8116020	WIDTH ADJUSTING BOLT

REF	PART #	DESCRIPTION
21	PH8116021	COMPRESSION SPRING
22	PH8116022	WIDTH NEEDLE
23	PH8116023	LID
24	PH8116024	CUP
25	PH8116025	SLIM NUT
26	PH8116026	HELIX NUT
27	PH8116027	PAINT INLET MOUTH
28	PH8116028	PAINT INLET PLUG
29	PH8116029	ATOMIZING CAP
30	PH8116030	SLIM GASKET
31	PH8116031	ROUND NUT
32	PH8116032	FLUID TIP
33	PH8116033	TRIGGER PIN
34	PH8116034	TRIGGER
35	PH8116035	GASKET
36	PH8116036	GUIDE BOLT
37	PH8116037	CLEANING BRUSH
38	PH8116038	SERVICE WRENCH
39	PH8116039	BARBED HOSE FITTING
40	PH8116040	LOCK NUT

WARRANTY AND RETURNS

Grizzly Industrial, Inc. warrants every product it sells for a period of **1 year** to the original purchaser from the date of purchase. This warranty does not apply to defects due directly or indirectly to misuse, abuse, negligence, accidents, repairs or alterations or lack of maintenance. This is Grizzly's sole written warranty and any and all warranties that may be implied by law, including any merchantability or fitness, for any particular purpose, are hereby limited to the duration of this written warranty. We do not warrant or represent that the merchandise complies with the provisions of any law or acts unless the manufacturer so warrants. In no event shall Grizzly's liability under this warranty exceed the purchase price paid for the product and any legal actions brought against Grizzly shall be tried in the State of Washington, County of Whatcom.

We shall in no event be liable for death, injuries to persons or property or for incidental, contingent, special, or consequential damages arising from the use of our products.

To take advantage of this warranty, contact us by mail or phone and give us all the details. We will then issue you a "Return Authorization Number," which must be clearly posted on the outside as well as the inside of the carton. We will not accept any item back without this number. Proof of purchase must accompany the merchandise.

The manufacturers reserve the right to change specifications at any time because they constantly strive to achieve better quality equipment. We make every effort to ensure that our products meet high quality and durability standards and we hope you never need to use this warranty.

Please feel free to write or call us if you have any questions about the machine or the manual.

Grizzly Industrial, Inc. 1203 Lycoming Mall Circle Muncy, PA 17756 Phone: (570) 546-9663 Fax: (800) 438-5901

E-Mail: techsupport@grizzly.com

Web Site: http://www.grizzly.com

Thank you again for your business and continued support. We hope to serve you again soon!



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3.	What is your annual househousehousehousehousehousehousehouse	old income? \$30,000 \$60,000		\$40,0 \$70,0	000-\$49,000 000+
4.	What is your age group? 20-29 50-59	30-39 60-69		40-49 70+	9
5.	How long have you been a w		lworker? 8-20 Yea	ars	20+ Years
6.	How many of your machines0-2		zly? 6-9	_	10+
7.	Do you think your machine re	epresents a good	l value?Y	es	No
8.	Would you recommend Grizz	ly Industrial to a	friend?Y	es	No
9.	Would you allow us to use yo Note: We never use names it	our name as a re more than 3 time	ference for our sY	customers es	in your area No
10.	Comments:				

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